

ABSTRACT

A fuel system for a turbine engine for reducing CO emissions caused during fuel staging processes while the turbine engine operates at reduced loads. The fuel system may include a first premix injector assembly and a second premix injector assembly, each formed from one or more injectors. In at least one embodiment, the first premix injector includes four injectors assembled into two pairs, and the second premix injector includes four injectors assembled into two pairs. The two pairs of the second premix injector assembly may be positioned between the two pairs forming the first premix injector assembly, thereby reducing the interface between fueled and unfueled areas, which reduces CO emissions.